

WHAT IS CLAIMED IS:

1. An image processing apparatus, comprising:

a converter, arranged to color-convert input image data using a three-dimensional table selected from a plurality of three-dimensional tables and an
5 interpolation process;

a first calculator, arranged to obtain error-corrected data by adding error data to the color-converted image data;

10 an output section, arranged to select a dot pattern from a combination of dot patterns selected from a plurality of combinations of dot patterns on the basis of the error-corrected data, and output the selected dot pattern; and

15 a second calculator, arranged to obtain error data by calculating a difference between a predetermined value corresponding to the output dot pattern, and the error-corrected data.

20 2. The apparatus according to claim 1, wherein the dot pattern expresses a combination of color dots.

3. The apparatus according to claim 1, wherein said output section selects the combination of dot patterns
25 in correspondence with a print medium on which the output dot pattern is printed.

4. The apparatus according to claim 1, wherein said converter selects the three-dimensional table in correspondence with a color appearance of an image to be printed by the dot pattern output from said output
5 section.

5. The apparatus according to claim 1, wherein the plurality of three-dimensional tables include a three-dimensional table having conversion
10 characteristics that increase a saturation of a specific hue.

6. An image processing method comprising the steps of:
15 color-converting input image data using a three-dimensional table selected from a plurality of three-dimensional tables and an interpolation process;
obtaining error-corrected data by adding error data to the color-converted image data;
20 selecting a dot pattern from a combination of dot patterns selected from a plurality of combinations of dot patterns on the basis of the error-corrected data, and outputting the selected dot pattern; and
obtaining error data by calculating a difference
25 between a predetermined value corresponding to the output dot pattern, and the error-corrected data.

7. The method according to claim 6, wherein the dot pattern expresses a combination of color dots.

8. The method according to claim 6, wherein the
5 combination of dot patterns is selected in correspondence with a print medium on which the output dot pattern is printed.

9. The method according to claim 6, wherein the
10 three-dimensional table is selected in correspondence with a color appearance of an image to be printed by the dot pattern.

10. The method according to claim 6, wherein the
15 plurality of three-dimensional tables include a three-dimensional table having conversion characteristics that increase a saturation of a specific hue.

20 11. A computer program product storing a computer readable medium comprising a computer program code, for an image processing method comprising the steps of:

color-converting input image data using a
three-dimensional table selected from a plurality of
25 three-dimensional tables and an interpolation process;

obtaining error-corrected data by adding error data to the color-converted image data;

selecting a dot pattern from a combination of dot patterns selected from a plurality of combinations of dot patterns on the basis of the error-corrected data, and outputting the selected dot pattern; and

5 obtaining error data by calculating a difference between a predetermined value corresponding to the output dot pattern, and the error-corrected data.

12. An image processing apparatus, comprising:

10 a memory, arranged to store a plurality of conversion tables corresponding to print media different from each other;

a console, arranged to designate one of the plurality of conversion tables; and

15 a processor, arranged to perform a color difference diffusion method corresponding to the designated conversion table.

13. The apparatus according to claim 12, further comprising a print section arranged to print an image on which the color difference diffusion method is performed,

wherein the plurality of conversion tables correspond to kinds of the print media to be printed on
25 the image by said print section.